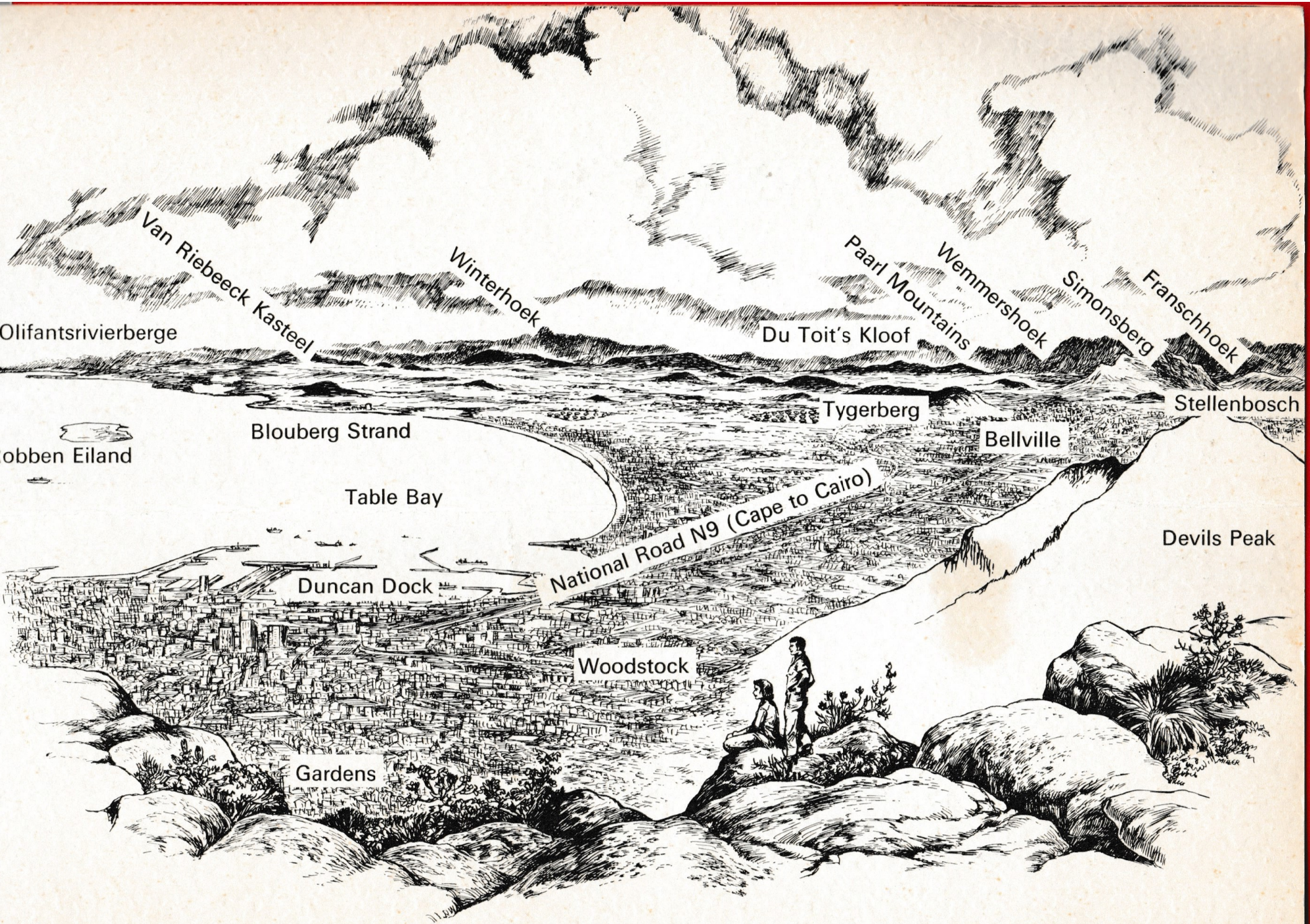
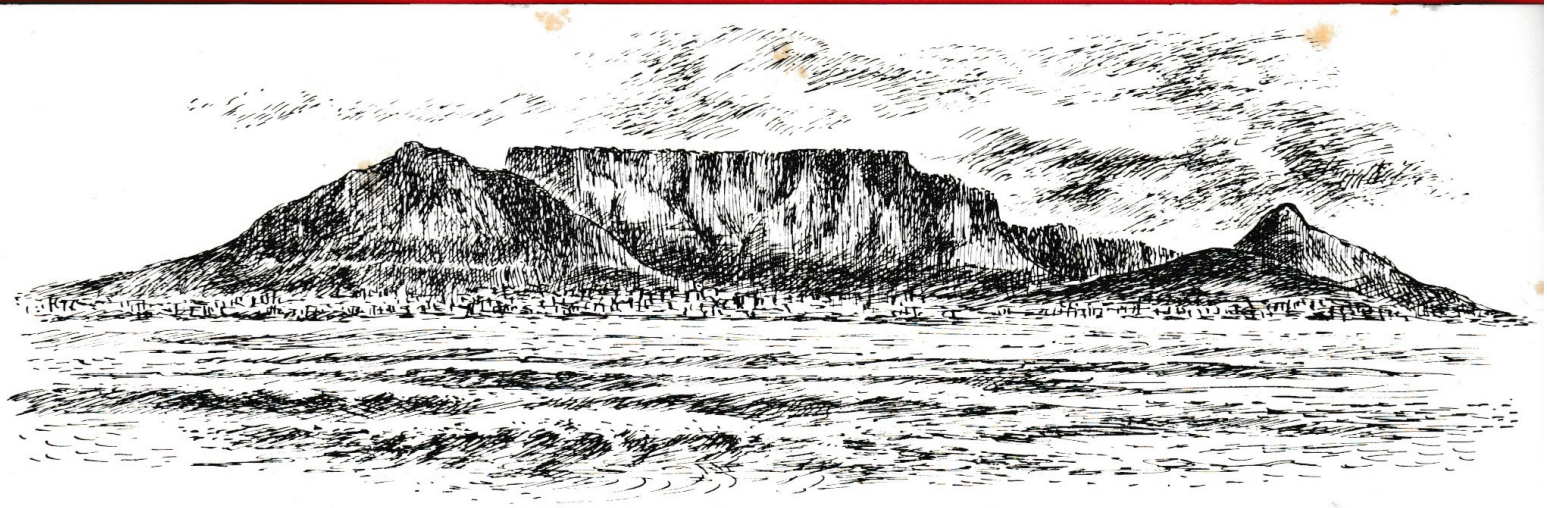
Table Mountain and the Cableway

T.V. BULPIN

OFFICIAL SOUVENIR OF THE TABLE MOUNTAIN AERIAL CABLEWAY COMPANY (PTY) LTD



View from the top of Table Mountain



Old Grey Father

Table Mountain, with its distinctive shape, is without doubt one of the best known mountains in the world. It is no giant as mountains go, but, looming over the shores of Table Bay, every inch of its 1 087.1 metres (3 563 ft) high mass of sandstone may be seen and its towering cliffs make a most imposing and powerful scene.

It has been truly said that without Table Mountain there would be no Cape Town. It was the perennial streams tumbling down the slopes of this old grey father of the city that provided the drinking water and general fertility to attract early sailormen. The mountain, with its easily identifiable shape, became a great landfall on one of the busiest sea highways of mankind, attracting travellers to the refreshment, shelter and rest offered by the settlement established at its foot, the old tavern of the seas which grew into the present city of Cape Town.

The beginning of Table Mountain itself was a singular example of the work of nature. About 150 million years ago an awesome disturbance occurred in this part of Earth. At the bottom of the sea which washed upon the then shores of Southern Africa, a 1 525 metres (5 000 ft) thick layer of mud, silt and sand had slowly accumulated, deposited there from the mainland by the erosive action of swiftly moving rivers.

The silt had been deposited in a submarine trough in three successive horizontal series (or generations of related deposits) each series with its own individuality resulting from changing influences of climate or geological variation.

Through the ages, the weight of this deposit steadily increased until it became so intolerable to the underlying mantle of the earth that something had to be done to shed the load or re-arrange matters to greater comfort. With what prodigious tremors, quakes, rumbles, shivers and shudders this readjustment was made, can only be imagined. The trough collapsed under the weight and the sides, closing in with a vice-like pressure, forced the burden of silt upwards to the surface, in the process warping, buckling, cracking and twisting the original horizontal layers.

The newly-emerged triple-layered mass of former sediment formed the three series known to geologists as the Table Mountain Series, the Bokkeveld Series and the Witteberg Series. The Table Mountain Series was the lowest of the three. To the eye it consists of thick beds of silt hardened into white quartzite and sandstone whose colour is often made red, orange or purple by the iron oxide and silica which cements the grains of sand. While it was being laid down this part of the Earth was experiencing an ice age. No fossilized signs of life are found in this series, but there are many striated and glacial scarred pebbles remaining as the sure sign of the presence of ice. After the ice age passed two more series of related sediments were deposited on top of the Table Mountain Series. These two upper series are richly fossilized; the **Bokkeveld** with shallow water fossils of the period known as the **Devonian Age** and the

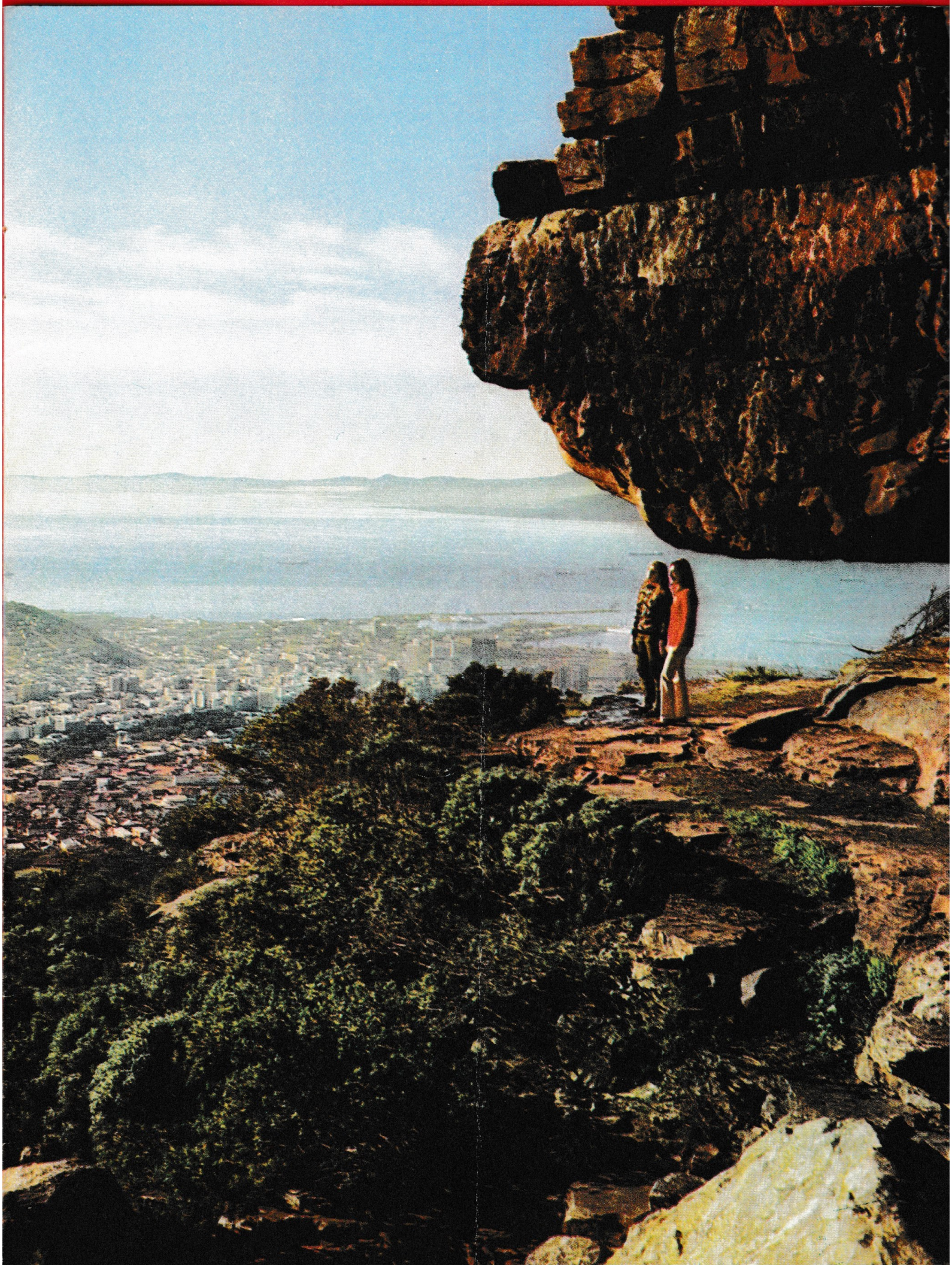
Witteberg with the remains of numerous plants. The Earth had obviously quite recovered from its period of glaciation and life was again flourishing in the southern hemisphere.

The three series of the original deposit of sediments collectively form what is known to geologists as the Cape System and this became a spectacular addition to the southern part of the African continent. Eroded by the elements into deep valleys and rugged mountain ranges, the Cape System has become one of the world's loveliest scenic areas and no Cinderella could have experienced a more magical transformation than this former layer of mud deposited at the bottom of the sea.

Table Mountain, in its present form, is the remnant of a vast layer of this old sediment which once covered the now sandy, low-lying area of the Cape Flats and connected to the mountains on the horizon. This portion of the deposit was completely eroded away, with a shallow arm of the sea sweeping in to replace it and leaving as a precipitous island the rock mass of Table Mountain and the other heights of the Cape Peninsula. At the same time the overburden of the upper Bokkeveld and Witteberg Series was also completely eroded away from this part of the Cape System, leaving Table Mountain in its present form.

Above: Venster (window) Buttress

Right: Silverstream Buttress, with its wonderful view



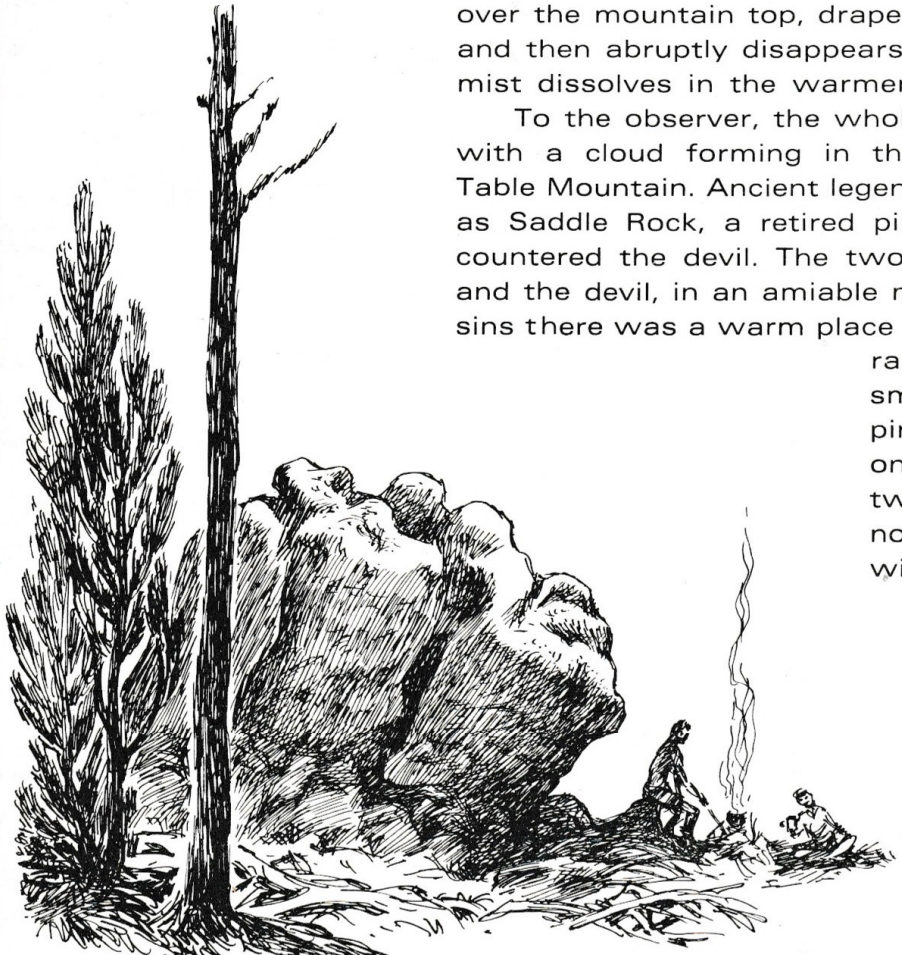
Laying the Table Cloth

The top of Table Mountain has an average annual rainfall of 1 400 mm (55 inches) mainly falling during the winter months May-September. During this period there are also generally a few light falls of snow but in this temperate climatic area the mountain does not have sufficient height to attract much snow nor to hold it for long without melting. The great weather feature of Table Mountain, its crowning glory, is without doubt the laying of the cloud table cloth, a spectacle at once beautiful, impressive and so apt to the shape of the mountain that, in devising it, one suspects a mood of drollery in Nature.

What happens is this: One of the two prevailing winds of the southern part of Africa is the south-easter which blows mainly during the summer months from October to March. It is this wind that creates the effect and not the prevailing north-westerly wind of the winter months. The south-easter starts off as an offshoot of the anti-cyclones which girdle the southern hemisphere between 35° and 40° south latitude each summer and whirl around in an anti-clockwise direction with the spin of the earth. Travelling from the south or south-west this powerful offshoot reaches the mountain ranges which line the end of Africa. Piled up against this barricade, the wind searches for a gap. It howls around Cape Hangklip and, amplified by what is known as 'corner effect', it swirls over the warm waters of False Bay, picking up a high content of moisture. In this state the wind collides head on with the mountains of the Cape Peninsula. Interesting things now take place.

The mountains force the wind to rise sharply and the moisture is condensed to a thick, white cloud in the cooler air at the mountain tops. Added to this effect of orographic condensation, Nature has not only humourously modelled the highest point of the mountain mass of the peninsula into the shape of a table, but also carefully arranged it as to catch the bulk of this white cloud. To a thickness determined by the height of the wind, the cloud rolls over the mountain top, drapes itself over the edge like a waterfall, and then abruptly disappears in an almost straight line where the mist dissolves in the warmer air of lower altitude.

To the observer, the whole majestic spectacle invariably starts with a cloud forming in the saddle connecting Devils Peak to Table Mountain. Ancient legend tells us that here, at what is known as Saddle Rock, a retired pirate by the name of Van Hunks encountered the devil. The two settled down to puff at their pipes and the devil, in an amiable mood, informed the pirate that for his sins there was a warm place reserved for him. Van Hunks did some rapid thinking and talked the devil into a smoking contest. The stake was the pirate's soul and the contest has gone on ever since, mainly in summer, for the two contestants are now aged and do not venture on the mountain during the winter wet weather.



Man on the Mountain

Perhaps it was some prehistoric man who first climbed to the summit of Table Mountain and there looked out spell-bound at that wonderful view of the great Atlantic Ocean sweeping in to the shores of Africa; of the grand curve of Table Bay and its then wild shore stretching northwards; the Cape of Good Hope, fairest of all Capes, lying in the sea like a finger pointing southwards; and the handsome mountain ranges looking back serenely from an horizon so romantically blue and inviting.

The first recorded climb to the summit was in 1503 A.D. when the Portuguese navigator, Antonio da Saldanha, led a party up the mountain. The purpose of the climb was to attain a high view site in order to ascertain the true position of Table Bay in the somewhat confusing topography of the Cape Peninsula. This pioneer party climbed to the summit by means of the great cleft which diagonally splits the front of the mountain and is known today as **Platteklip** (flat rock) Gorge. This route, the easiest but most tedious way up the mountain, has always served as the principal route of ascent and descent for all those wishing to master the mountain by means of their own two feet.

Since Saldanha's climb, countless thousands of people have found their way to the summit of Table Mountain. From a recreational point of view, Table Mountain is so much a part of Cape Town that the citizens have the unique asset in their civic backyard of a gigantic playground of trees, rocks, wild flowers, streams, waterfalls, caves, picnic and camping spots, viewsites and miles of paths for walkers following the contours at different levels and zig-zagging up the heights, while the serious climber has for his pleasure about 350 different routes to the summit, ranging from easy scrambles through the full range of graded climbs, A to G. Included in the Gs are some of the most exposed and breathtakingly severe rock climbs known to mountaineers. On any good weekend or holiday, dozens of climbing parties are out on Table Mountain, and the Mountain Club of South Africa has a most enthusiastic membership. It is a special pleasure to see so many young climbers of both sexes enjoying themselves in the open air, discovering the exhilaration, excitement and intellectual delight of being close to nature on one of its grandest natural cathedrals.

Some wild flowers of Table Mountain

Life on the Mountain

Table Mountain provides a home for an extraordinary variety of living things. Its flora is especially rich. There are at least 2 622 known species of plants growing in the Cape Peninsula and most of these may be found on some parts of Table Mountain and its slopes, their distribution influenced by the considerable difference in soils and climate at varying altitudes, as well as by situations sheltered or exposed to excessive rainfall or sunshine.

The chief flowering season is during the months of spring and summer (September – March). Botanists and laymen alike are then bedazzled by an almost overwhelming display of all the colour and shape of the unique, most ancient Cape Flora. It is in these months, from January on, that there may be seen (1) the lovely disas – pale mauve, blue, scarlet – in twenty different species and often described as the pride of Table Mountain. Other summer flowers include (2) the watsonias in the seven shades of seven species; (3) the deep-blue agapanthus; (4) the vivid red crassulas; (5) the creamy white inkbloms; (6) the dainty vaalbos; (7) the orange nodding heads; (8) the six-petalled sterretjies (little stars); (9) the cream arum lilies; (10) many aromatic shrubs, and everlastings, – white, red and yellow; (11) belladonna lilies, especially flourishing as Nature's compensation in areas recently burned by grass fires; and (12) the magnificent protea family with the red **Protea cynaroides** as surely the unrivalled king of all flowers.

The months of autumn and winter (April – August) have their own flowers, just as lovely as summer if not quite so numerous. Then it is that you may see (13) the brilliant scarlet of the red-hot pokers marking the beginning of autumn in April; the odd little carrion flowers (14) of the stapelias; and such euphorbias (15) as the Vingerpols. May sees the flowering of (16) numerous members of the Oxalis family; (17) the lovely red Afrikaners; and (18) many of the famous ericas (heaths) of the Cape. June finds several of the proteas (19) in bloom with many handsome shapes and vivid colours.

Throughout the year, as well, may be seen such plants as the celebrated silver trees with their glistening leaves (blossoming in October and November) and ferns, mosses and lichens may be seen in every suitable portion of the mountain on which there can hardly be a square centimetre where something is not growing.

Apart from plants, Table Mountain is the home of many other forms of life. About 150 species of birds may be seen on the mountain or in its vicinity. Among these are the Cape sugar birds with their long, slender, curved beaks. They feed on the honey and insects found in the flowers of proteas. Sunbirds, of the malachite and the orange-breasted varieties, may frequently be seen. The chirpy and perky little Cape white eyes, with the white ring around their eyes and over-all greenish-brown colouring; the tinktinkies (Cape wren warblers) with their thudding-wing sounds and metallic chinking; Cape rock pigeons with their cooing song; Cape rock thrushes; red-winged sterlings; black eagles and Cape

rock kestrels, soaring over the precipices, their keen eyes watching for prey.

Of reptiles there are cobras, berg adders, skaap-stekers and rinkals, but such snakes are shy, seldom seen, and then generally on the lower and warmer slopes. Lizards are numerous, with such varieties as crag lizards, rock agamas (or koggelmannetjies) with the blue-headed male; green-striped mountain lizards; and girdled lizards covered in spiny scales.

Grooved mountain tortoises, chameleons, marbled geckos, frogs and toads of nineteen different species including the famous platanna; the strange long-toed frog, Gray's frog and the rare ghost frogs; and a vast variety of insects and spiders, being eaten and eating one another with relentless appetite; all live happily or unhappily on the mountain, providing fields of study as yet only partly explored by scientists, and yielding to the layman many fascinating sights. Not least of these sights is the nuptial flight of the fireflies on warm January evenings, a wonderful spectacle on the mountain top which the summer-night working of the cableway makes it possible for everyone to see.

The game animals which used to frequent the mountain slopes have been driven away by the encroachment of man, but there may still be seen such mammals as troops of chacma baboons foraging over the rocks in search of food; dassies (rock hyraxes), sunbathing on vantage points and, with an angry little cry, scampering to shelter beneath the rocks at the sight of any intruder. Curious to see, as well, are the occasional family groups of thars, the exotic Himalayan mountain goats with their shaggy brown coats. Originally introduced to the Groote Schuur Zoo, they escaped, took to the mountain, and now flourish in considerable numbers.

Right: Halfway up where the two cabins pass. In the background is Devil's Peak

Left: The waterfall at Silverstreams

The Cableway

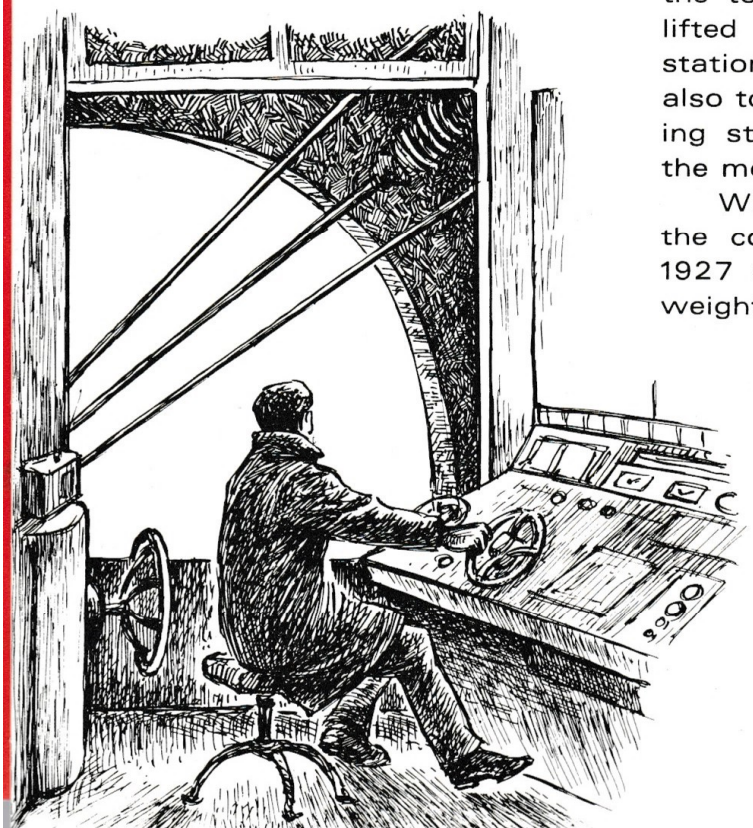
The idea of building some form of passenger transport to the top of Table Mountain was first discussed in Cape Town before the First World War. The City Council, in 1913, brought out from Switzerland Mr. H. H. Peter, who was an expert on mountain railways. He investigated various proposals, such as a rack railway hauled by its own locomotive running from Kloof Nek over the corner of Fountain Ravine to the Central Table, and also a funicular, hauled by a wire rope, running up Platteklip Gorge.

Mr. Peter recommended the funicular. At an estimated cost of £75 000, it was the cheapest and easiest to build, although the rack railway would give the most spectacular views. On 18th August, 1913 a poll of ratepayers authorized the spending of £100 000 on what was called the Table Mountain tramway. Then war broke out and the whole project had to be shelved.

The war was followed by a depression and the money originally voted for Mr. Peter's scheme was spent on other things. Then, in the Cape Times in January, 1926, a Norwegian engineer, Mr. T. Strömsoe, proposed a new project of a cableway (properly called a ropeway) which would be reasonably cheap to build, safe, easy to maintain, and provide magnificent views.

A leading Cape Town business man, Sir Alfred Hennessy, became interested in this project and with his backing the Table Mountain Aerial Cableway Company Ltd. was established in 1927. It had a capital of £50 000 and the first directors consisted of Sir Alfred Hennessy (chairman), Sir David Graaff, Bart., Sir Ernest Oppenheimer, M.L.A., and Mr. T. Strömsoe, C.E.

Messrs Adolf Bleichert, of Germany, secured the contract to build the cableway, and a local firm of architects, Messrs Walgate & Elsworth, designed the upper and lower stations and the summit tearoom. Construction involved heavy and dangerous work. An approach road nearly 1.6 km (one mile) long had to be made to the site of the lower station. A temporary cableway had then to be erected to convey building materials and heavy machinery to the top of the mountain. Water supplies for both stations had also to be arranged and this involved the building of a pumping station behind the summit, at the top of Fountain Ravine. From here the water is lifted sixty-two metres (200 ft) to the upper cable station and tearoom. A light railway one mile long had also to be laid on the summit in order to convey building stone from a quarry which would not disfigure the mountain.



With all preparations completed, work started on the construction of the lower station in December 1927 and on the upper station in June 1928. Lightweight cables were used to haul up the heavier cables and on 9th August, 1929 the first full-sized car made the journey carrying to the summit Sir Alfred and Lady Hennessy, Mr. T. Strömsoe the engineer, Mr. Sidney Benjamin, and Councillor D. Bean. No accident of a serious nature had occurred during the construction, and none has ever marred the working of the cableway since it was opened to the public on 4th October, 1929. This is a very proud record.

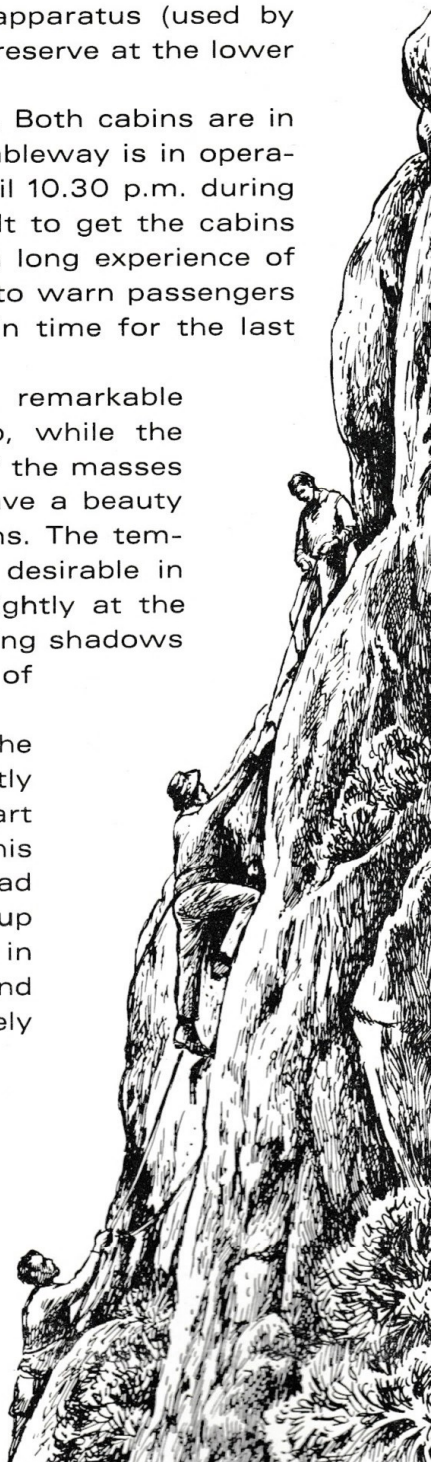
The two carrying (or track) cables are 1 220 metres (4 000 ft) long and 46.5 mm thick. They are each pretensioned by a 33-ton counterweight at the lower station and have a breaking strain of 168 tons. They are minutely inspected at least once each month, with the chief engineer of the company airily seated in a special inspection chair mounted high above the cabins.

The two cabins counterbalance each other and take five minutes to do the journey, travelling at the rate of 4.3 metres per second (9.4 m.p.h.) attached to an endless hauling cable. Each cabin carries 23 passengers and one attendant and fully loaded weighs approximately 3 tons. The breaking strength of the hauling rope is over 36 tons. The driving engine (120 horsepower) is housed in the upper station and is powered through a substation connected to an 11 000 volt supply line leading up Kloof Corner ridge of the mountain, and from the Cape Town municipal electrical supply. Should the power fail, there is an auxiliary Diesel engine in the upper station and this would take over. In the short period of transition, the cabins would remain stationary, due to the operation of automatic braking in the upper station. In the event of a total breakdown, rescue of passengers would be effected by a special lowering apparatus (used by many cableways throughout the world) or by rescue cabins kept in reserve at the lower station.

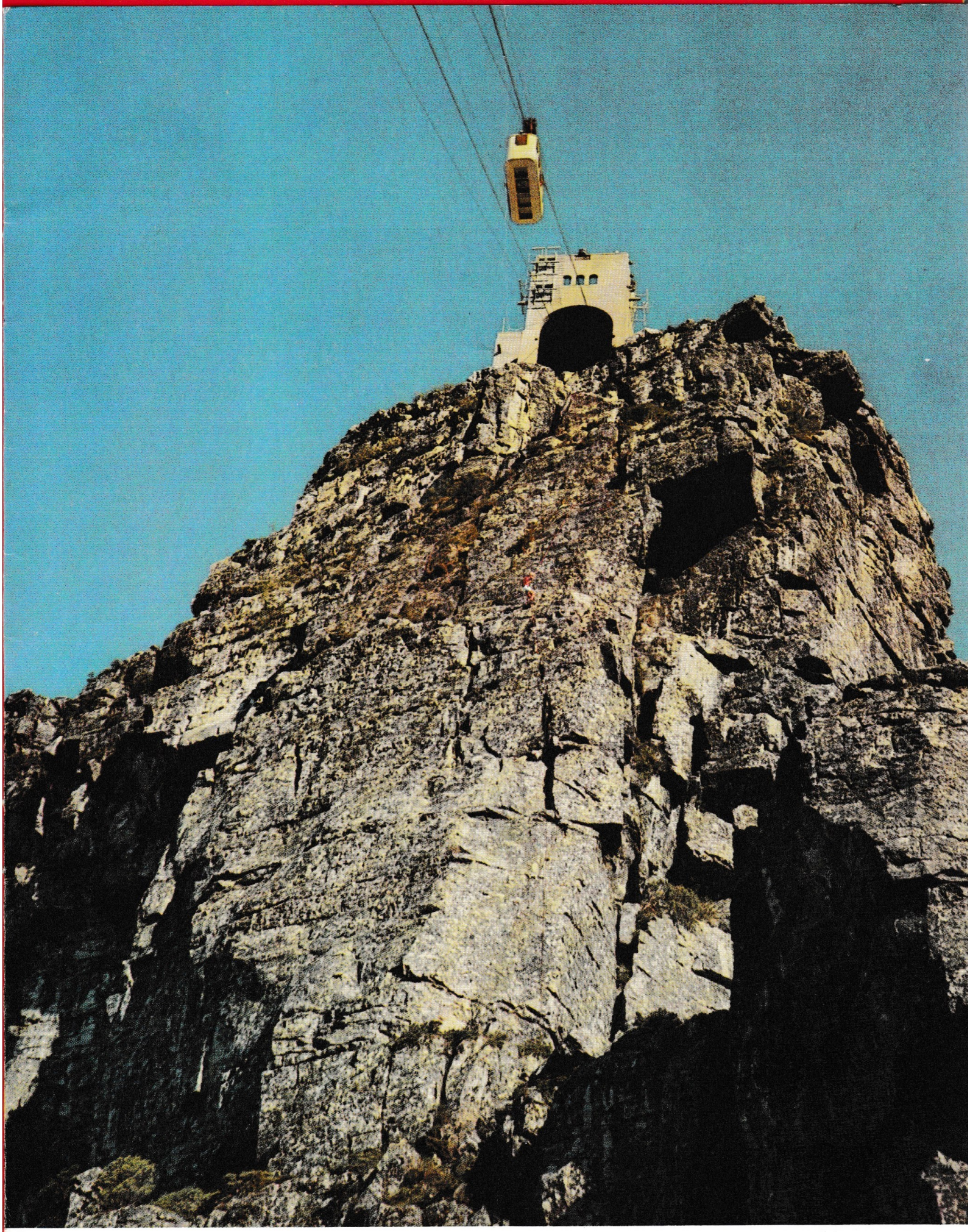
In 1965 radio communication was introduced on the cableway. Both cabins are in constant communication with the upper and lower stations. The cableway is in operation daily from 9 a.m. till 6 p.m. in winter and from 8.30 a.m. until 10.30 p.m. during summer. Only strong wind hinders operations by making it difficult to get the cabins into the stations. In windy conditions, the operating staff, through long experience of the weather, anticipate the need to close and a hooter is sounded to warn passengers on the mountain top to return immediately to the upper station in time for the last descending cabins.

In any weather conditions, a journey up the cableway is a remarkable experience. In clear weather the ever expanding view is superb, while the towering precipices of the mountain, the sheer power and drama of the masses of rock, are awe-inspiring. Clouds, although hindering the view, have a beauty of their own and present no difficulty to the passage of the cabins. The temperature is apt to drop sharply, however, and warm clothing is desirable in this kind of weather. In cloudy weather with the sun shining brightly at the upper station, the famous Brocken Spectre is often seen. The moving shadows of the cabins encircled by rainbows are projected on to the banks of clouds with an effect both weird and beautiful.

Another beautiful spectacle is often seen in the mornings when the cableway commences operation. A thick blanket of mist frequently completely covers Cape Town and the Cape Flats as though this part of the world is still fast asleep. The cabins soon rise above this relatively thin layer of mist. Table Mountain, Devil's Peak, Lion's Head and the other mountains of the Peninsula may be seen looming up abruptly as though they are precipitous, forbidden islands standing in a snow-white and most mysterious sea, as full of wierd shapes and dreams as that enchanted lake which Liadov described so exquisitely in his symphonic poem.



The first cabin of the morning rises high above the mist. Lion's Head in the background



The upper station. Below it the famous (and dangerous) climbing route known as the Arrow Face

Do's and Don'ts on Top of the Mountain

Do's

Look at the view from all directions. There are a number of telescopes near the top station and restaurant. In the upper station there is a fine relief model which identifies the surrounding countryside.

Walk along the 'table top' as far as the upper end of Platteklip Gorge (10 minutes).

If you are energetic, and have the time, continue the walk from Platteklip Gorge to Maclear's Beacon (highest point) 1 087.1 m. Wonderful views, interesting plants, refreshing atmosphere. Notice the striations and glacial-scarred pebbles close to the beacon, relics of an ancient Ice Age (one hour from cable station). The memorial (in the form of a toposcope) to members of the mountain club killed in the Second World War, is 35 metres (100 ft) south-east of the beacon. East of the beacon there is a plaque in memory of Field Marshal Smuts.

Maclear's Beacon is named after Sir T. Maclear, the astronomer, and was one of the three beacons used in the first survey of the Cape. The other two in the triangle are at Piketberg and Sneeuwberg, approximately 120 and 45 kilometres distant.
Take a day (with a picnic lunch) wandering along the paths which lead to such places as the reservoirs and Echo Valley. The reservoirs were the first major sources of supply for Cape Town. They still supply the city with a portion of its water.

Enjoy refreshment, or a meal, in the restaurant.

Remember your friends and buy a few souvenirs at the Cableway kiosk and post letters or postcards at the tearoom or waiting room at the top of the mountain. They will carry the special Table Mountain postmark.

Return to the cable station immediately the hooter sounds or in good time before the cableway closes (6 p.m. winter; 10.30 p.m. on summer nights).

Don'ts

Do not carve or paint your initials anywhere on the mountain.

Do not leave rubbish or dirt around. Use the baskets provided.

Do not light fires, throw cigarette ends or matches about. Fires can be devastating.

Do not pluck flowers, uproot or damage plants.
There are heavy fines for these offences.

Do not throw stones down the mountain – this is extremely dangerous.

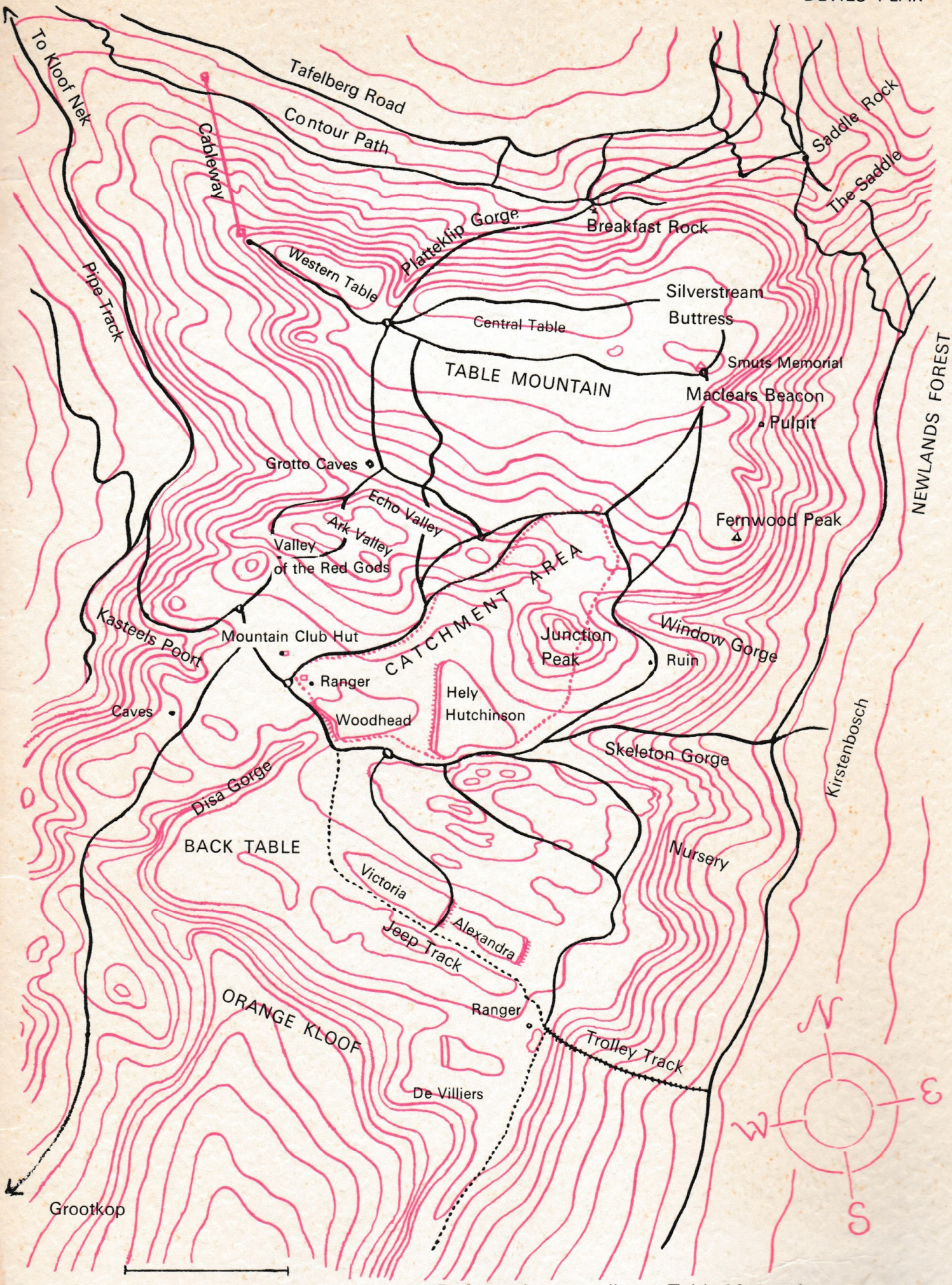
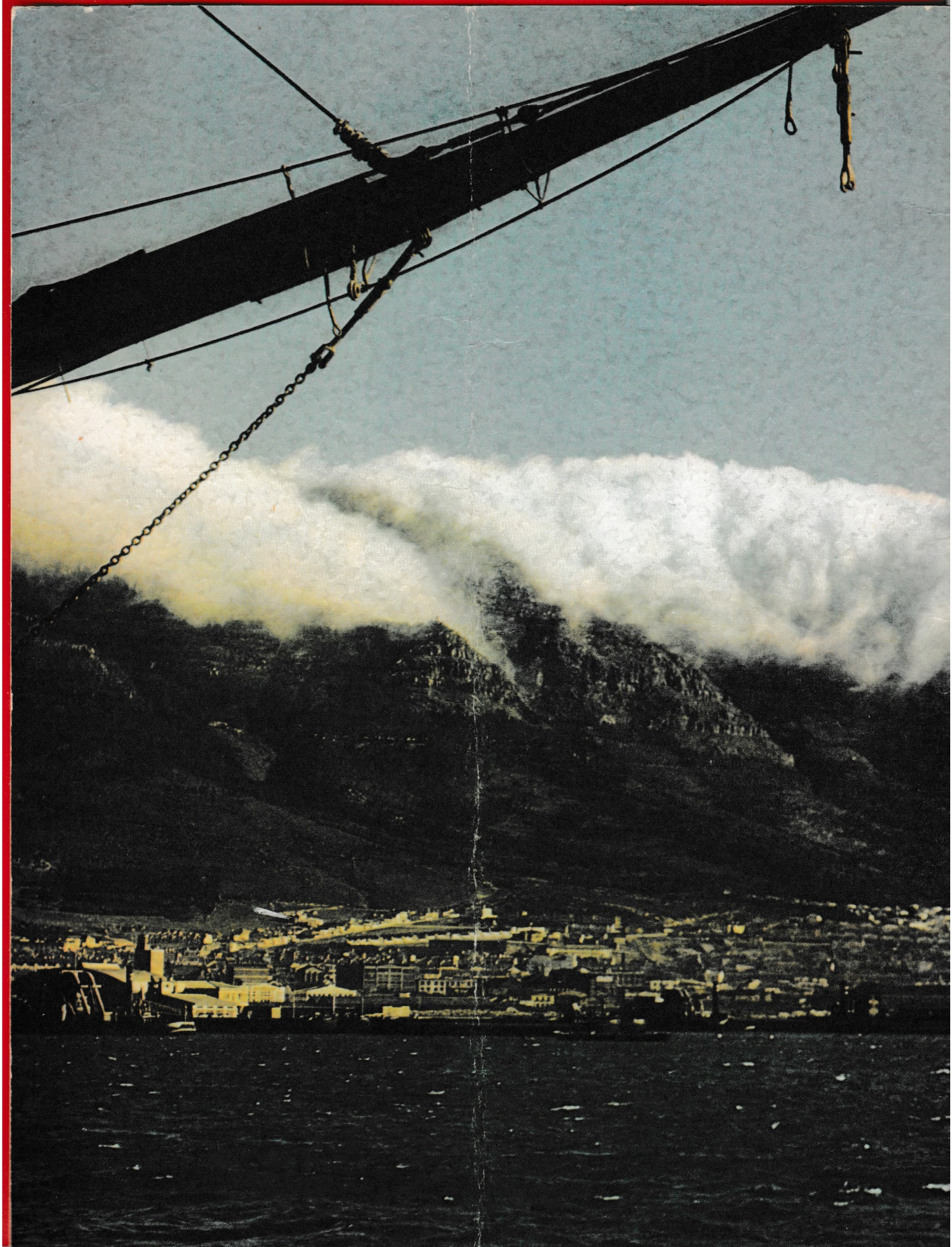
Do not wander far from the upper station if you see mist or darkness approaching.

Do not attempt any climbing unless it is within your capabilities.

Do not stand too near the edge.

Published for the Table Mountain Aerial Cableway Co. Ltd. by
Books of Africa (Pty) Ltd
1005 Cape of Good Hope Savings Bank Building,
St George's Street, Cape Town

Printed by Galvin and Sales, Cape Town



Paths and easy walks on Table Mountain